

A Beginner's Guide to Integrating Grocy with Home Assistant for Inventory Management



Vijish Mannoor

Follow

5 min read · Sep 8, 2024



18



AI generated image

Imagine having a smart home system that not only manages your lights and thermostat but also keeps track of your household inventory seamlessly. With **Grocy** and **Home Assistant**, this vision becomes a reality. Think of Grocy as your household management solution for your home— an open-source, web-based solution designed to handle everything from groceries to household tasks. The developers even call it “**ERP beyond your fridge**”!

Getting Grocy up and running is simpler than you might think. While this article won't dive into installation specifics, you can find all the details you need on the [Grocy official website](#) or their [GitHub repository](#). For those using Home Assistant, the easiest way to install Grocy is as an add-on. Plus, Grocy offers community-created apps for both desktop and mobile users — check them out [here](#).

Get Vijish Mannoor's stories in your inbox

Join Medium for free to get updates from this writer.

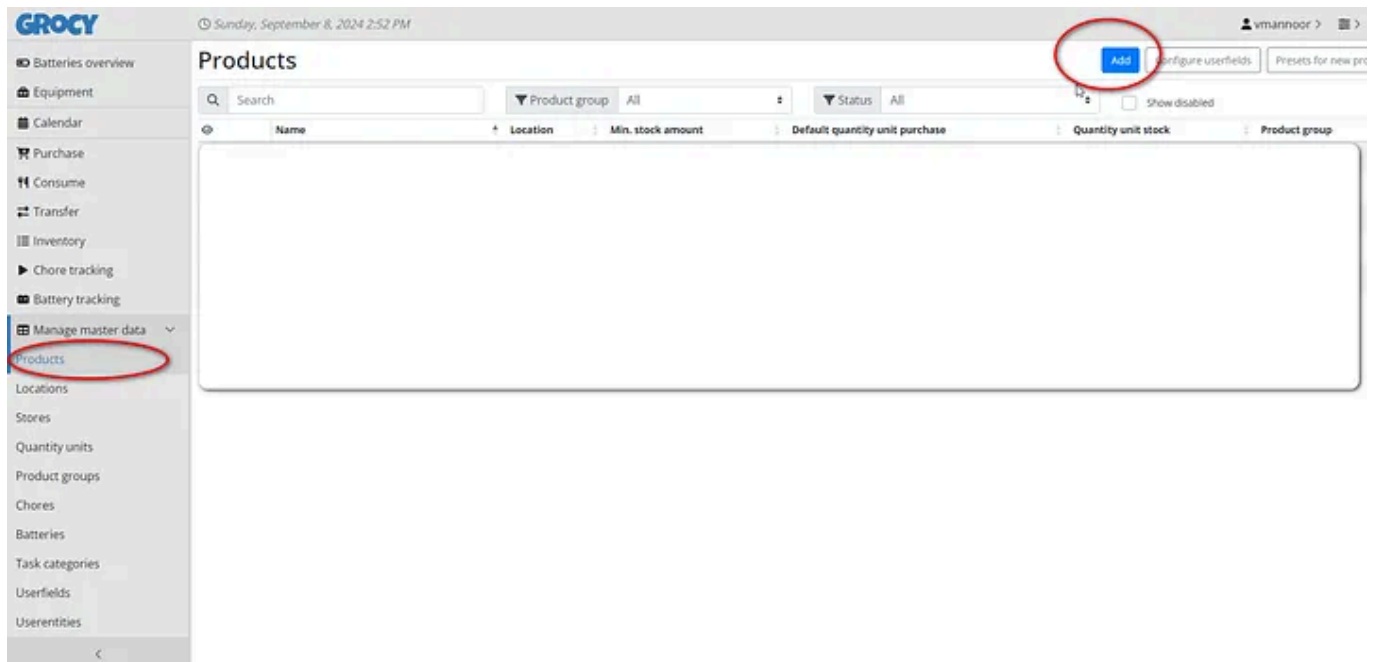
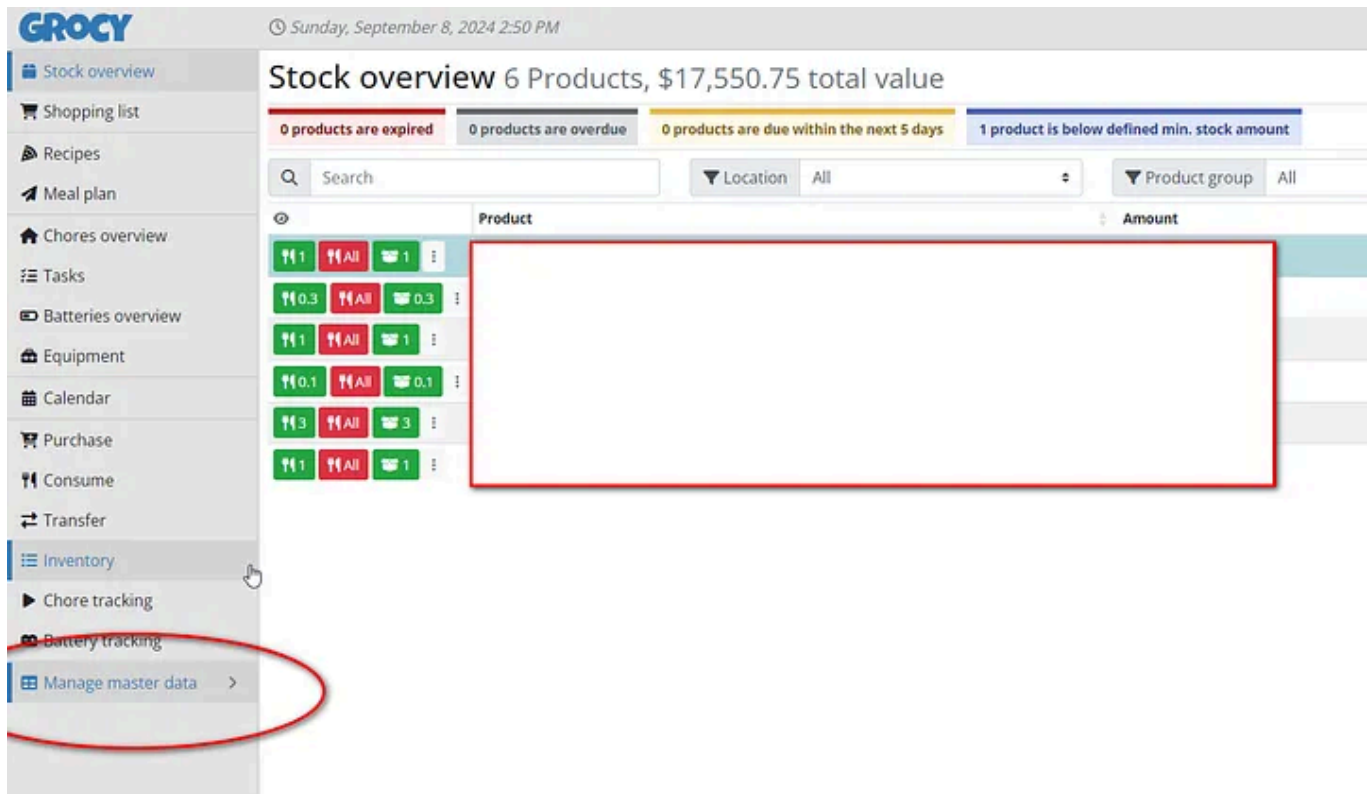
Enter your email

Subscribe

As a household management system, Grocy offers many features, such as recipe management, shopping planning, battery tracking, and chore tracking. Since this is a beginner's guide, I will describe one of the simpler yet useful functions of Grocy: stock management. I will explain this using the example of managing the stock of dishwasher tablets.

Step 1: Create a New Product in Grocy

Let's start by adding a new product to Grocy. Head to the “Manage Master Data” section and select “Product.” Click the “Add” button to create a new product.



While you can add a lot of details like product category and storage location, the essentials are the product name and quantity units. To manage these units, go to the “Quantity Units” page under “Manage Master Data.” Create two units, such as “tablet” and “pack,” and set the conversion rate (e.g., how

many tablets are in one pack). This ensures accurate tracking for consumption, purchase, and pricing.

Edit quantity unit

Name in singular form

Name in plural form

☒ Active

Description

[Save & continue](#) [Save & return to quantity units](#)

Default conversions *1 pack is the same as...* [Add](#)

	Factor	Unit
 	30	tablet

Quantity unit stock

Default quantity unit purchase ?

Default quantity unit consume ?

Quantity unit for prices ?

Once this step is complete, you can return to Home Assistant and continue setting up to manage this product from Home Assistant.

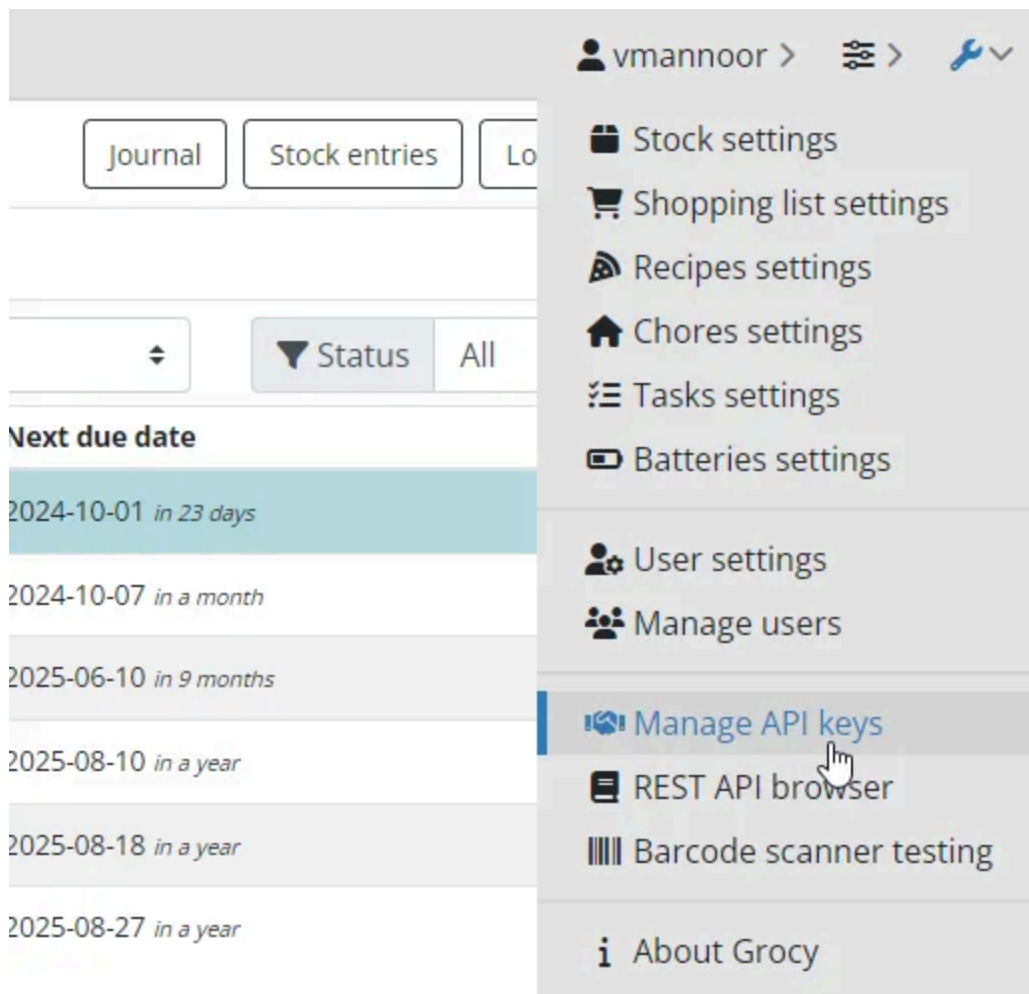
Step 2: Setting Up the REST Sensor

Next, we'll create a REST sensor in Home Assistant to monitor your dishwasher tablet stock. Here's a sample configuration:

```
- platform: rest
  name: dishwasher tablets stock
  resource: http://192.168.1.2/api/stock/products/3
  method: GET
  value_template: "{{ value_json.stock_amount }}"
  headers:
    Accept: application/json
    Content-Type: application/json
    GROCY-API-KEY: !secret grocy_api
  unit_of_measurement: "pcs"
  icon: mdi:dishwasher
  state_class: total
```

In this setup:

- **resource** : This is the URL of the Grocy API endpoint for the stock of the product. If you have installed Grocy as an add-on, you should replace `192.168.1.2` with the local address of your Home Assistant setup. The product ID (in my case, `3`) is the unique ID of the product in Grocy. You can get this ID from the browser's address bar by opening the product for editing in your Grocy app. The URL will look like `http://192.168.1.2/product/3`, and the ID is the last part.
- **value_template** This extracts the stock amount from the API response.
- **headers** Include the API key for authentication. I've stored the API key in the `secrets.yaml` file. You should first create the API key from the "Manage API Keys" section in Grocy's settings.



Step 3: Updating Inventory When the Dishwasher Is Used

Now, let's set up an automation to update the stock when the dishwasher is in use. I'm using a smart plug and door sensor to monitor the dishwasher cycles. For the purpose of this article, we'll focus on the fact that whenever the cleaning cycle is initiated, I consume 1 tablet from the stock. I use a shell command to transfer this information to Grocy.

```
- alias: "Dishwasher State - Start"
  id: "automation_appliances_dishwasher_state_update_cleaning"
  trigger:
    platform: numeric_state
```

```

entity_id: sensor.dishwasher_power
above: 5
for: "00:00:30"
condition:
  - condition: and
    conditions:
      - condition: template
        value_template: "{{ states('sensor.dishwasher_state') != 'Cleaning' }}"
mode: single
max_exceeded: silent
action:
  - service: mqtt.publish
    data:
      topic: ha/state/dishwasher
      payload: "Cleaning"
      retain: true
  - service: mqtt.publish
    data:
      topic: ha/event/dishwasher_start
      payload: "{{ now() }}"
      retain: true
  - service: shell_command.grocy_consume_item
    data:
      grocy_key: !secret grocy_api
      product_id: 3
      amount: 1

```

Using Shell Commands

To interact with Grocy's API, we use shell commands for consuming and adding items:

```

shell_command:
  grocy_consume_item: 'curl -X POST http://192.168.1.2/api/stock/products/{{product_id}}/consume/{{amount}}'
  grocy_add_item: 'curl -X POST http://192.168.1.2/api/stock/products/{{product_id}}/add/{{amount}}'

```

These commands use `curl` to make POST requests to Grocy's API endpoints. The `grocy_consume_item` command decreases the stock, while the

grocy_add_item command increases it.

Step 4: Automating Stock Notifications

To ensure you're never caught off guard by low stock levels, you can set up an automation to send a notification when the dishwasher tablets run low. Here's how:

```
- alias: Dishwasher tablets stock low
  id: "automation_notification_appliances_dishwasher_tablets_stock_low"
  trigger:
    - platform: time
      at: "17:00:00"
  condition:
```

Open in app ↗

Sign up

Sign in

Medium

Search

Write



```
mode: single
max_exceeded: silent
action:
  - service: telegram_bot.send_message
    data:
      title: "🧼 Dishwasher"
      message: "Only {{ states('sensor.dishwasher_tablets_stock')| int(default=5) }} tablets left."
      target: !secret tele_id_home
      parse_mode: markdown2
      inline_keyboard:
        - 🛒 Purchased (30 pcs):/dish_tablet_purchase_30
        - 🛒 Purchased (45 pcs):/dish_tablet_purchase_45
        - 🛒 Purchased (60 pcs):/dish_tablet_purchase_60
```

In this automation:

- **Trigger:** Activates daily at 17:00.
- **Condition:** Checks if the stock is below 5 tablets.

- **Action:** Sends a Telegram message with options to update the stock directly.

Handling Telegram Callback Responses

To process responses from Telegram and update Grocy's inventory accordingly, use the following automation:

```
- alias: Dishwasher tablets stock low Telegram Callback Response
  id: "automation_appliances_dish_washer_tablets_stock_low_telegram_callback"
  initial_state: true
  trigger:
    - platform: event
      event_type: telegram_callback
      event_data: {}
  condition:
    - condition: and
      conditions:
        - condition: template
          value_template: "{{ trigger.event.data.command.startswith('/dish_tablets') }}"
  action:
    - service: shell_command.grocy_add_item
      data:
        grocy_key: !secret grocy_api
        product_id: 3
        amount: "{{ trigger.event.data.command.split('_')[3]|int(default=0) }}"
        price: 0
    - service: telegram_bot.send_message
      data:
        title: "🧼 Dishwasher Tablets"
        message: "{{ trigger.event.data.command.split('_')[3]|int(default=0) }}"
        target: !secret tele_id_home
    - service: telegram_bot.delete_message
      data_template:
        message_id: "{{ trigger.event.data.message.message_id }}"
        chat_id: !secret tele_id_home
```

This automation listens for Telegram callback events, updates the stock in Grocy based on the user's selection, and sends a confirmation message.

Conclusion

Integrating Grocy with Home Assistant provides a streamlined way to manage household inventory through automation. This article covered a simple example, but Grocy has so much more to offer. I hope this article helps you get started and encourages you to explore further as you go.

If you have any questions or need additional assistance, feel free to ask in the comments below!

Smart Home

Smart Home Automation

Automation

Home Assistant

Productivity

**Written by Vijish Mannoor**

11 followers · 18 following

Follow

I'm a smart home enthusiast and devote home assistant user. I love creating automation that make daily life easier and more enjoyable.

No responses yet



Write a response

What are your thoughts?

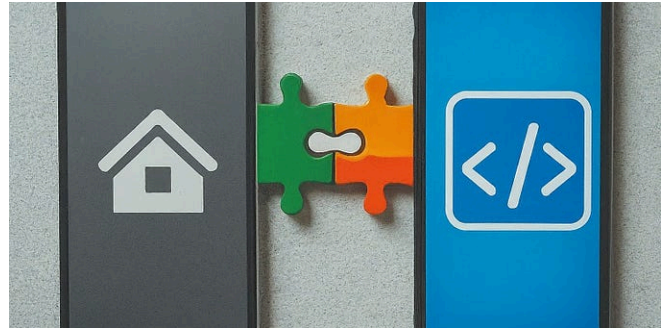
More from Vijish Mannoor



Vijish Mannoor

Unlocking the Power of Templates in Home Assistant

May 25, 2024



Vijish Mannoor

Fixing Tuya Device Problems in Home Assistant with AppDaemon

Home Assistant stands out as an ideal solution for smart home enthusiasts who se...

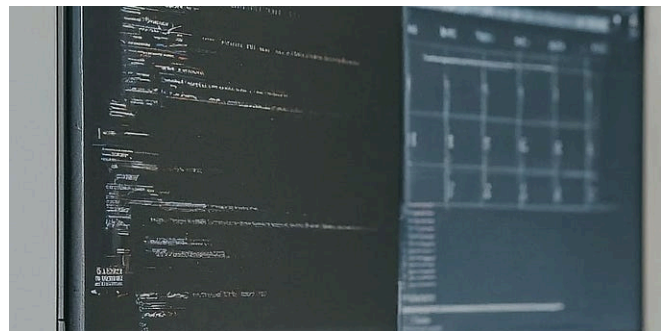
Jun 15, 2024



Vijish Mannoor

Controlling Smart switch—Smart light pair in Home Assistant

When embarking on your smart home journey, one of the initial steps is often the...



Vijish Mannoor

Mastering AppDaemon: Scraping Telegram Data to Create Home...

Dec 28, 2023 5



Jun 11, 2024 11 1



See all from Vijish Mannoor

Recommended from Medium



Manyi

Running LLMs Locally on Mac with Apple's MLX

The ability to run Large Language Models (LLMs) locally on personal hardware has...

May 25 38 1



Sohail Saifi

Why Japanese Developers Write Code Completely Differently (And...

I've been studying Japanese software development practices for the past three...

Jul 17 7.1K 190





In ILLUMINATION by Peter

Stop! Don't Put Your iPhone Upside Down in Your Pocket

And here is why



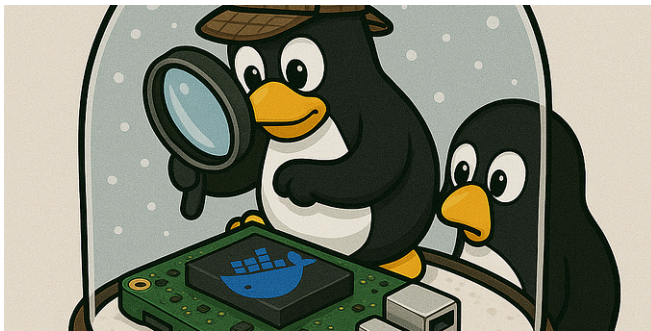
Jul 8



593



67



In CodeX by Levente Csikor

Part 15—How I Run My Entire Digital Life on a Raspberry Pi:...

Monitor your Raspberry Pi containers with cAdvisor—lightweight and fun! Graylog? To...

Jun 29



65



In Predict by iswarya writes

GPT-5 Is Coming in July 2025—And Everything Will Change

“It’s wild watching people use ChatGPT... knowing what’s coming.” —OpenAI insider



Jul 7



9.2K



313



Faizan Saghir

M4 vs M3 vs M2 vs M1 MacBook Air For Coding: A Developer's Choice ...

Real Benchmarks, Dev Workloads, and the MacBook Air That Actually Delivers



Jun 1



79



4

[See more recommendations](#)